VOLTAGE REGULATION USING CURRENT FEEDBACK

ABSTRACT

A circuit having a voltage regulated by a reference current. The circuit includes a current feedback loop and a reference current source that is capable of producing a reference current. The current feedback loop includes an output device, a voltage to current converter, and a current feedback element. The voltage to current converter is coupled to the output device. A node of the voltage to current converter is the regulated voltage. The current feedback element is coupled to the voltage to current converter to provide a feedback current from the voltage to current converter to compare with the reference current to produce an error signal that is input to a control terminal of the output device. Thus, the current feedback loop regulates the voltage at the node of the voltage to current converter.